REMARKS

This AMENDMENT UNDER 37 CFR 1.114 is being filed with a Request For Continued Examination (RCE) filed under 37 CFR 1.114, and also responsive to the Official Action dated July 27, 2004. Applicants respectfully request the Examiner to reconsider the application in view of the following remarks.

Reconsideration is respectfully requested of the rejection of Claims 1-15 under 35 U.S.C. §103a) as being unpatentable over US Patent No. 6,611,249 issued to Evanicky, et al. (Evanicky) in view of US Patent No. 5,956,006 issued to Sato (Sato). Applicants respectfully traverse the Examiner's rejections for at least the reasons set forth below.

Initially, it is noted that pages 2-5 of the Final Rejection essentially repeat the previous Office Action of February 18, 2004, responsive to which an AMENDMENT of May 18, 2004 was filed. The Final Rejection includes a Response to Arguments on pages 5-6 which is new and will be addressed herein.

Evanicky et al.

Evanicky discloses a system and method for controlling the white balance and providing gamma correction within a flat panel liquid crystal display (LCD). Electronic circuitry is included in the flat panel LCD for coupling the LCD to a host computer in order to receive a white-balance adjustment control signal from the host computer. Further, the LCD can be coupled to a light-sensing device in order to detect the optical characteristics of the LCD.

The present invention has two major distinctions over Evanicky.

1) The first major distinction is the accuracy of bits for calculating the offset.

2) The second major distinction is the location of the offset look-up table (LUT).

With respect to Claim 1, Evanicky does not expressly disclose or teach how to determine an offset value for each RGB primary color signal. In contrast thereto, the

present invention discloses and teaches clearly calculating the offset value for each RGB primary color signal with an accuracy of bits larger in number than those of the input video (page 8) to avoid any bit dropping due to adjusting with an offset in the gamma curve and also to preserve a smooth curve.

In Evanicky, the CLUT (look-up table) that determines an offset value is a part of the host system (graphics subsystem in PC). In contrast thereto, the present invention places the offset LUT (look-up table) inside the monitor to maintain the independence of the associated PC (page 11 and Figure).

With respect to Claim 9, the present invention does not require adjusting backlight color by using two kinds of backlight which have different spectrums from each other. The present invention only adjusts backlight luminance to avoid the luminance decreasing with offset on each RGB primary color signal.

Sato et al.

Sato discloses an electrically controlled birefringence (ECB) type LCD in which a given voltage is applied to a single pixel of the LCD to realize a given color on the LCD, and which does not have sub-pixels of R/G/B, the outputs of which are blended to produce a given color. The Sato ECB type LCD is completely different from the LCD of the present invention apparatus that has sub-pixels of R/G/B, the outputs of which are blended to be capable of presenting different display colors specified by red, green and blue luminance data.

In Sato, a CPU produces image data of RGB for defining a display image, and the image data of RGB is written into a memory. A conversion table converts the image data to voltage data corresponding to a voltage for displaying a color close to a color defined by the image data. The voltage data is converted to an analog voltage that is in turn applied to the ECB type liquid crystal display device.

The present invention is generally directed to setting a color temperature of a white point, e.g., at a highest gray level, in an LCD display device, and making an adjustment so as to maintain a color temperature substantially constant at each gray level.

In particular, the present invention is directed to a white point adjustment methodology and apparatus for adjusting white color coordinates at any gray level of white precisely on the CIE (chromaticity diagram).

In regard to claims 1, 5, 8 and 12, the Examiner states that Evanicky comprises "a first step of setting a white point by deciding an offset quantity of at least one color signal from a highest gray level for each color temperature (step 940 of figure 15 and col. 17, lines 53-63). Further, the Examiner states Evanicky comprises "a second step of setting an offset quantity of the color signal in a direction of converging a halftone white point for each color temperature set in the first step (steps 950 and 960 of figure 15 and col. 17, line 64 through col. 18, line 13). Applicant respectfully disagrees with the Examiner's assessment due to the fact that Evanicky fails to expressly teach how the offset value for each RGB primary input data is determined.

The presently claimed invention further distinguishes from Evanicky by teaching a mode of calculation that is performed with an accuracy of bits larger in number than those of the input video data. This practice results in the avoidance of bits being dropped due to an offset adjustment of the gamma curve, thus resulting in a highly accurate convergence of a white point.

The Examiner cites Sato as teaching "a liquid crystal display apparatus, wherein an offset value is added to the offset quantity of at least one of the color (col. 11, lines 3-57)." Sato, as mentioned above, is directed to an electrically controlled birefringence (ECB) type LC. The ECB does not comprise sub-pixels of RGB on the LC display; rather a voltage is applied onto a pixel of LC to realize a certain color. Sato teaches that color data from a PC system that consists of an RGB combination is converted to one voltage level to enable one pixel of the LCD to display a desired color. A desired color will be approximated by the color of the nearest color coordinates on CIE, however, the color cannot be completely the same color though.

Thus, the methodology described in Sato cannot achieve the graduation of a color, for example, black to white with smooth gray scale, black to green with smooth green

gray scale, etc. as in the present invention. Thus, Sato does not cure the deficiencies of Endo because the methodology disclosed by Sato cannot adjust white coordinates freely, much less precisely. That is, Sato cannot move the color coordinates of white out of color locus of birefringence type LC on CIE.

The Federal Circuit has dealt with what is required to show a motivation to combine references under 35 U.S.C. § 103(a):

> [R]ather then pointing to specific information in Holiday or Shapiro that suggest the combination..., the Board instead described in detail the similarities between the Holiday and Shapiro references and the claimed invention, noting that one reference or the other-in combination with each other... described all of the limitations of the pending claims. Nowhere does the Board particularly identify any suggestion, teaching, or motivation to combine the ... references, nor does the Board make specific-or even inferential-findings concerning the identification of the relevant art, the level of ordinary skill in the art, the nature of the problem to be solved, or any factual findings that might serve to support a proper obviousness analysis.

In re Dembiczak, 50 USPQ2d 1614, 1618 (Fed. Cir., April 28, 1999) (citations omitted).

Thus, from *In re Dembiczak* it is clear that the Federal Circuit requires a specific identification of a suggestion, motivation, or teaching why one of ordinary skill in the art would have been motivated to select the references and combine them. In this instance the Examiner has not done this.

Thus, Applicants respectfully submit that the Examiner has used impermissible hindsight by citing the combination of the disclosures of Evanicky and Sato to reject claims 1-15 under 35 U.S.C. 103(a). To prevent the use of hindsight based on the invention to defeat patentability of the invention, the Examiner is required to show a motivation to combine the references that create the case of obviousness. Applicants respectfully submit that the Examiner has not met this burden.

In light of the Examiner's lack of specificity with regard to the motivation to combine the cited references, the applicant respectfully submits that the rejections for obviousness of claims 1-15 under 35 U.S.C. 103(a) lack the requisite motivation and must be withdrawn.

In view of the above, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance issued. If the Examiner believes that a telephone conference with Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

William C. Roch
Registration No. 24,972

SCULLY, SCOTT, MURPHY & PRESSER
400 Garden City Plaza
Garden City, New York 11530
(516) 742-4343
WCR:jf